PEACE/WILLISTON
FISH & WILDLIFE
COMPENSATION
PROGRAM

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Peace/Williston Fish and Wildlife Compensation Program Annual Report 2008/09

M.D. Wood, B.G. Blackman, and M. Imus

August 2009

PWFWCP Report No. 334

The Peace/Williston Fish & Wildlife Compensation Program is a co-operative venture of BC Hydro and the provincial fish and wildlife management agencies, supported by funding from BC Hydro. The Program was established to enhance and protect fish and wildlife resources affected by the construction of the W.A.C. Bennett and Peace Canyon dams on the Peace River, and the subsequent creation of the Williston and Dinosaur Reservoirs.

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PEACE /WILLISTON FISH AND WILDLIFE COMPENSATION PROGRAM

ANNUAL REPORT 2008/09

POLICY COMMITTEE:
David Facey (BC Hydro)
Rebecca Reid (Dept. of Fisheries and Oceans)
Nancy Wilkin (Ministry of Environment)

STEERING COMMITTEE:
Don Cadden (Ministry of Environment) – Chair
Kevin Conlin (BC Hydro)
Debbie Beattie (Public Member)
Dan Bouillon (BC Hydro)
Ted Down (Ministry of Environment)
Mike Nash (Public Member)
Grand Chief Gordon Pierre (Tsay Keh Dene)

PROGRAM MANAGERS:
Marc Imus – Peace/Williston Program
Andrew MacDonald – BCH's Fish and Wildlife Compensation Programs

PUBLIC RELATIONS:
Dave Conway (BC Hydro)
Bob Gammer (BC Hydro)
Cam McAlpine (BC Hydro)

FISH TECHNICAL COMMITTEE:

Ray Pillipow (MoE, Prince George) - Chair
Brendan Anderson (MoE, Fort St. John)
Pete Scales (BCH, Hudson's Hope)
David Wilson (BCH, Burnaby)

WILDLIFE TECHNICAL COMMITTEE:

Pete Scales (BCH, Hudson's Hope) – Chair
Doug Heard (MoE, Prince George)
Ed Hill (BCH, Burnaby)
Conrad Thiessen (MoE, Fort St. John)

FISH BIOLOGISTS:

Brian Blackman (BCH)
Arne Langston (BCH)
Randy Zemlak (BCH)

WILDLIFE BIOLOGISTS:

Mari Wood (BCH)
Fraser Corbould (BCH)

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ACRONYMS

PWFWCP

BCH	B.C. Hydro
CCI	Community Consultation and Information
CR	Community Relations
ESIM	Environmental and Social Issues Manager
ETS	Environmental Technical Specialist
FTC	Fish Technical Committee
FTR	Full-Time Regular
FTT	Full-Time Temporary
MoE	Ministry of Environment
NRS	Natural Resource Specialist
PC	Policy Committee
PST	Planning, Safety and Training
PWAC	Peace/Williston Advisory Committee
PWFWCP	Peace/Williston Fish and Wildlife Compensation Program
SC	Steering Committee
SIP	Strategic Implementation Plan
SWP	Safe Work Procedures
TC	Technical Committee
WLR	Water License Requirements
WTC	Wildlife Technical Committee
WUP	Water Use Planning

STAKEHOLDERS and PROJECT COLLABORATORS

ABIT	Abitibi Consolidated
BCTA	BC Trappers Association
BCWF	BC Wildlife Federation
CANFOR	Canadian Forest Products Ltd.
CWS	Canadian Wildlife Service
DFO	Department of Fisheries and Oceans
FFS	Freshwater Fisheries Society
FRBC	Forest Renewal BC
FWCP (CB)	Fish and Wildlife Compensation Program- Columbia Basin
GOABC	Guide-Outfitters Association of BC
HCTF	Habitat Conservation Trust Fund
HHRG	Hudson's Hope Rod and Gun Club
LCHH	Lions Club of Hudson's Hope
MFGA	Mackenzie Fish and Game Association
MNO	Mackenzie Nature Observatory
MoF	Ministry of Forests
TKD	Tsay Keh Dene Band
WI	Wildlife Infometrics Inc.
WSSBC	Wild Sheep Society of BC
WSC	Water survey of Canada
UBC	University of British Columbia
UNBC	University of Northern British Columbia

ADMINISTRATION

Program Staff and Committees

As an outcome of the Comprehensive Review of all 3 BC Hydro fish and wildlife compensation programs completed at the end of 2007, a temporary full-time Program Manager position was created for the PWFWCP, and Marc Imus was seconded from the Integrated Land Management Bureau to fill this position for a one-year term starting in October 2008. This was in direct response to the recommendation from the Comprehensive Program Review to have a full-time manager located in the PWFWCP office making staff reporting relationships clearer. Another key recommendation from the Comprehensive Program Review was that a separate Program Coordinator to facilitate certain activities among the three programs (Peace/Williston, Columbia Basin and Bridge/Coastal) should be considered as a way of effectively delivering common elements of the three programs. In response to this recommendation, a Coordinating Manager was also recruited (on a permanent basis) in the fall of 2008 to oversee the integration of the three compensation programs funded by BC Hydro under one provincial program.

In the latter part of the 08/09 fiscal, membership on the Policy Committee (PC) changed when Ralph Archibald replaced Nancy Wilkin as the Assistant Deputy Minister for the Ministry of Environment. Ralph delegated his Ministry of Environment seat on the Policy Committee to Al Martin to represent the ministry's interests. Membership on the Steering Committee (SC) changed with the departure of Deb Bisson, BC Hydro Environmental and Social Issues Manager (ESIM), Hudson's Hope, at the end of the previous 07/08 fiscal, and the temporary assignment of Program Manager and Steering Committee representative responsibilities to Pete Scales (Acting ESIM, Hudson's Hope). The new ESIM position was filled in fall 2008 by Dan Bouillon, who assumed responsibilities as the new Steering Committee member in the fall of 2008. Kevin Conlin (BCH) continued as SC chair for most of 2008/09 with Don Cadden (MoE) assuming the duties of SC chair in February 2009. Efforts to engage local First Nations in the compensation program continued this year, and Grand Chief Gordon Pierre (Tsay Keh Dene) joined the Steering Committee to provide a First Nations perspective.

Membership on the Wildlife Technical Committee (WTC) remained the same as the previous fiscal, with Pete Scales (BCH) continuing on as chair for his second year. The Fish Technical Committee (FTC) membership remained the same as well, and Ray Pillipow (MoE) continued serving as chair for his third year.

Senior fish biologist Brian Blackman (NRS 3), fish biologists Arne Langston (NRS 3) and Randy Zemlak (NRS 2), senior wildlife biologist Mari Wood (NRS 3) and wildlife biologist Fraser Corbould (NRS 2) continued as Full-Time Regular (FTR) staff responsible for administering, managing, and conducting fish and wildlife projects and activities. A conference call was held with BCH's Environmental and Social Issues group to discuss the outcome of the Natural Resource Specialist review, and several discussions on the issue were held with the new program manager, Marc Imus. Both Fraser Corbould and Randy Zemlak (NRS 2's) were reclassified to NRS 3's at the end of the fiscal, resulting in all 5 program staff working at the same NRS 3 level. All staff completed annual Performance Plans and participated in mid-year and final performance reviews with the new program manager.

Felicia Juelfs was hired for a 6-month Full Time Temporary (FTT) term in the spring/summer of 2008 to assist with stub verification work on the Donna Creek project, and with analysis and reporting for several backlog reports.

Administrative Meetings

A meeting was held in early October between program staff and the two new Program Managers, Marc Imus and Andrew MacDonald. Several informal meetings were held throughout the remainder of the year with Program Manager Marc Imus to discuss various program topics and issues (e.g., administrative activities, finances, work planning, task prioritization). David Facey also travelled to Prince George to meet with staff, and staff gave presentations on the fish and wildlife programs and on "near-misses" that have occurred over the years of fieldwork.

Financial Tracking

Financial accounting was conducted by program staff and included completion of 07/08 fiscal year-end accounting (for Administration, Planning, Community Consultation, Fish and Wildlife budgets and activities), summarization of those expenditures for the 07/08 Annual Report, development of new fiscal work orders and financial tracking systems for 08/09, monthly tracking of Fish and Wildlife program expenditures, and summarization of the Fish and Wildlife expenditures for Quarterly Reports.

Equipment, Vehicles, and Office Space

All staff computers were upgraded to the Windows VISTA system in 2008/09, and replaced with new laptop-docking station computers. Truck and portable VHF radios were exchanged and reprogrammed to meet narrow-banding requirements and frequency needs. Three pick-up trucks, the Williston Ranger, and smaller boats and trailers were maintained and repairs completed as required. Annual Transport Canada boat inspections were also completed. The Polaris boat was moved from the BC Hydro central workshop in PG to Peace Canyon, and an older trailer was surplused. Staff worked with the BC Hydro Properties Division to amend the previous occupancy license with MoE, to reflect the new office and warehouse space.

PLANNING, SAFETY, AND TRAINING

Planning

Policy and Steering Committees

A First Nations workshop was held in Fort St. John in September 2008 to discuss participation in the program and the number of seats required to adequately represent First Nations perspectives on the various program committees. At the request of First Nations, a meeting was held between Policy Committee members and First Nations leadership in February 2009. Policy Committee and First Nations leaders agreed to develop a new Memorandum of Understanding (MoU) which would recognize aboriginal rights and interests, and provide strategic-level direction to define the vision and principles for future involvement of First Nations in the planning, decision-making and delivery of compensation program projects and expenditures. A sub-committee was struck with First Nations and SC members to develop a new Memorandum of Understanding (MoU) in the new fiscal year to guide future involvement of First Nations in the PWFWCP.

The SC held two program meetings in Prince George in November 2008 and February 2009. The November meeting was attended by all SC and TC members, program staff, and representatives from various First Nations in the watershed. Staff gave presentations on Fish and Wildlife activities. TC chairs and senior biologists from the Fish and Wildlife programs attended the February 2009 SC meeting and presented their respective 09/10 budgets. Several First Nations

representatives attended the SC meetings in November 2008, and Grand Chief Gordon Pierre attended the February 2009 meeting.

Strategic Planning

During the previous 2 years, the PWFWCP started a comprehensive planning initiative to establish a more strategic approach to the projects it undertakes. Strategic Plan development was put on hold pending further direction from the Steering Committee.

Annual Program Planning

The Fish Program held its annual "technical" session on 11/12 June 2008 which focused on the status of outstanding reports and potential projects for 2008, and two additional meetings (28-29 October and 25-27 November) to discuss and prepare the 09/10 budget. Staff developed detailed project proposals and the draft Fish Budget for submission to the SC, addressed SC comments, and prepared and submitted the final Fish Budget package. Staff attended a Provincial Arctic Grayling meeting to provide input on the Provincial Arctic Grayling Management Plan, and to gain insight on how the document would impact Program activities. Fish staff also attended a meeting with MoE and UNBC staff to discuss work on Arctic Grayling for the coming year.

Wildlife Program staff prepared a powerpoint presentation for delivery by Pete Scales at the fall Steering Committee meeting. Staff prepared a detailed progress update on projects for the WTC, and attended a meeting with WTC and BCH management to discuss ongoing work planning and task prioritization issues. The Wildlife Program held one conference call in December 2008 to discuss proposed projects, project priorities, and available funding for 09/10. Staff prepared a preliminary 09/10 wildlife budget and submitted to the WTC for review, then prepared draft and final versions of the Wildlife Budget incorporating changes requested by the WTC and SC. Staff from both the Fish and Wildlife sections met with BCH's Water Licence Requirement staff to discuss possible habitat enhancement activities along the Williston Reservoir foreshore.

Workshops and Conferences

Staff biologists attended several workshops in 08/09 including:

- BCH Environment Summit, and BCH Environmental and Social Issues Symposium, New Westminster (all staff)
- MoE regional staff meeting/workshop, Prince George (Wood)
- MoE Conservation Framework workshop, Prince George (Corbould, Wood)
- PhD thesis defence on Predators in the Muskwa/Kechika, UNBC, Prince George (Wood)
- Portions of the Mountain Pine Beetle Conference, Prince George (Corbould)
- Provincial Biologists meeting, Kamloops (Wood)
- Y2Y Peace Breaks Workshop, UNBC, Prince George (Wood, Imus)
- MoE Wild/Domestic Sheep Workshop, Kamloops (Wood)
- Provincial Arctic Grayling Meeting, Prince George (Fish Staff)
- 30th Annual International Kokanee Conference, Idaho (Langston)

Safety

Program staff participated in monthly safety meetings with the Program Manager and BCH's COSH (Coordinator of Occupational Safety and Health). Staff assisted the Program Manager with development of BCH's Safety Plan and Safety Training Schedule, and provided input on the BCH Firearms Policy. Previous Safe Work Procedures were reviewed by Pete Scales, and edits were made to 5 other plans in preparation for approval. The Aerial Survey safe work procedure was updated to include the requirement for self-inflating lifejackets when flying over water. The Safety Training Schedule spreadsheet and associated documents were discussed and updated. A

PWFWCP Hazard Identification and Risk Assessment was conducted. Various other safety-related issues were addressed including improvements to the safety check-in system, investigation and purchase of 2 additional Iridium satellite phones, and updating of First Aid kits.

A significant amount of unanticipated staff time was incurred as a result of BC Hydro's restriction on helicopter use in 2008/09, and participating in BC Hydro initiatives to improve safety when using helicopters. Briefing notes on previous years' and 08/09 scheduled PWFWCP helicopter use, and the availability of helicopter types and categories of use within the program, were prepared for BC Hydro. Staff participated in a conference call with BC Hydro's Environmental and Social Issues (ESI) department to discuss requirements for helicopter use for the program. A multi-project request for helicopter approval was prepared and submitted to BC Hydro management. Meetings with BMT Isis and BCH's Corporate Safety were attended by Fraser Corbould. Arne Langston represented ESI and Corporate BC Hydro's Site C Environmental Team on the BC Hydro "Helicopter Management System" development team. Staff also provided comments on the draft Helicopter Safety Management System. A summary of helicopter use by fish and wildlife section within the PWFWCP was provided to BC Hydro's Office of Chief Technology Officer for inclusion in analysis for potential use of unmanned aircraft.

Safety training courses completed by staff in 08/09 included:

- BC Hydro Work Protection Practices (WPP) local components for GMS (Blackman)
- Level 1 First Aid and Spinal Immobilization (Juelfs),

Training (Non-Safety)

No non-safety training courses were taken by staff in 08/09.

COMMUNITY CONSULTATION AND INFORMATION

Community Consultation

No formal public consultation activities were undertaken this year.

Information Dissemination

First Nations

Significant efforts were made by staff throughout the year to hire local band members to participate in various projects. An information package on the PWFWCP was sent to Tsay Keh Dene upon their request. Fish staff set up and manned the PWFWCP display at the McLeod Lake Indian Band "Assembly" days.

Program Reporting and Website

Program staff produced the 2007/08 Annual Report and 3 Quarterly Reports on 08/09 activities. The Fish Program also produced monthly reports on fish program activities. The Annual Report and technical program reports were posted to the PWFWCP website (http://www.bchydro.com/pwcp/). Comments, updates, and new report postings were provided to BCH consultant for our PWFWCP program website. The general fish biology information from Dr. McPhail's CD-Rom was modified and posted on our website. Under the direction of the Coordinating Manager, Andrew MacDonald, work began on the development of a new provincial

Fish and Wildlife Compensation Program website which will serve all three "chapters" in the province (Peace/Williston, Columbia Basin and Bridge/Coastal).

Presentations

Mari Wood developed a presentation for Marc Imus to deliver at the Y2Y Peace Breaks Workshop at UNBC in December. Wood also prepared a presentation for the Mountain Goat Workshop in Kamloops but was unable to attend and present. Arne Langston provided a presentation on the PWFWCP and natural science career choices to the Kelly Road High School Environmental Studies class (Prince George). Langston also coordinated the 6th in a series of annual lectures sponsored by the PWFWCP at UNBC, where Dr. Joseph Nelson (Professor Emeritus, University of Alberta) lectured on "How Fish Get Their Common Names". The lecture was preceded by a brief overview of the PWFWCP, and was followed by a "meet and greet session" with PWFWCP biologists at their display booth. Blackman also attended a meeting of the Peace/Williston Advisory Committee meeting (PWAC), and delivered a presentation on Arctic Grayling research conducted by the PWFWCP. Langston conducted a radio interview with the local Mackenzie radio station and provided information about PWFWCP activities in the area, and CKPG-TV aired television coverage of the Kokanee Rearing Project.

The PWFWCP and specific fish and wildlife projects were also discussed through informal meetings and talks with industry representatives, club members, guide outfitters, trappers, contractors, students, tourists, and other government agencies. Detailed project information and technical reports were also discussed with and disseminated to consultants, biologists and researchers.

Written Materials

The 16th issue of *Natureline*, covering both the 06/07 and 07/08 fiscal years, was completed and produced in summer 2008. Program staff provided the project articles, project updates, photographs, and financial expenditure information to Cam McAlpine with BCH Public Affairs, and completed reviews and edits. A briefing note highlighting both wildlife and fish projects was prepared for the BCH dam tour guides, and presented to the guides by Arne Langston. Program information was also provided to Marc Imus for inclusion in BCH's submission to the Federal Caring Company Program. A press release was produced on the PWFWCP-sponsored UNBC Environmental Science lecture series. Newspaper articles appeared in the local Mackenzie paper profiling the Dina Creek ecology field day, and in the local Fort St. John paper on the Kokanee Rearing Project. Public Affairs department placed advertisements on the PWFWCP in the 2008/09 Freshwater Fishing Regulations Synopsis and the 2008/09 Hunting and Trapping Regulations Synopsis.

Work continued by BCH contractors and designers on development of signs to promote program awareness and highlight wildlife viewing opportunities at the Mugaha Marsh, Dunlevy, and Dinosaur Reservoir sites. Program staff provided final feedback to Cam McAlpine and BCH designers regarding content and layout issues, and specific site placement. The signs were not completed but scheduled for final completion in 09/10. PWFWCP Fish ID brochures, recent *Naturelines*, Fish and Wildlife Species booklets, and program brochures were distributed to various tourist booths, hotels, and government agents in the Program area.

Sponsorship/Donations

Staff worked with UNBC Awards Selection Committee to select Sarah Ballard as the recipient of the 2008 *"Peace/Williston Aquatic Research Award"*. Her research is focused on Arctic grayling conservation in the Williston Watershed. Funds were also donated to the District of Mackenzie for their annual winter "Family Ice Fishing" event.

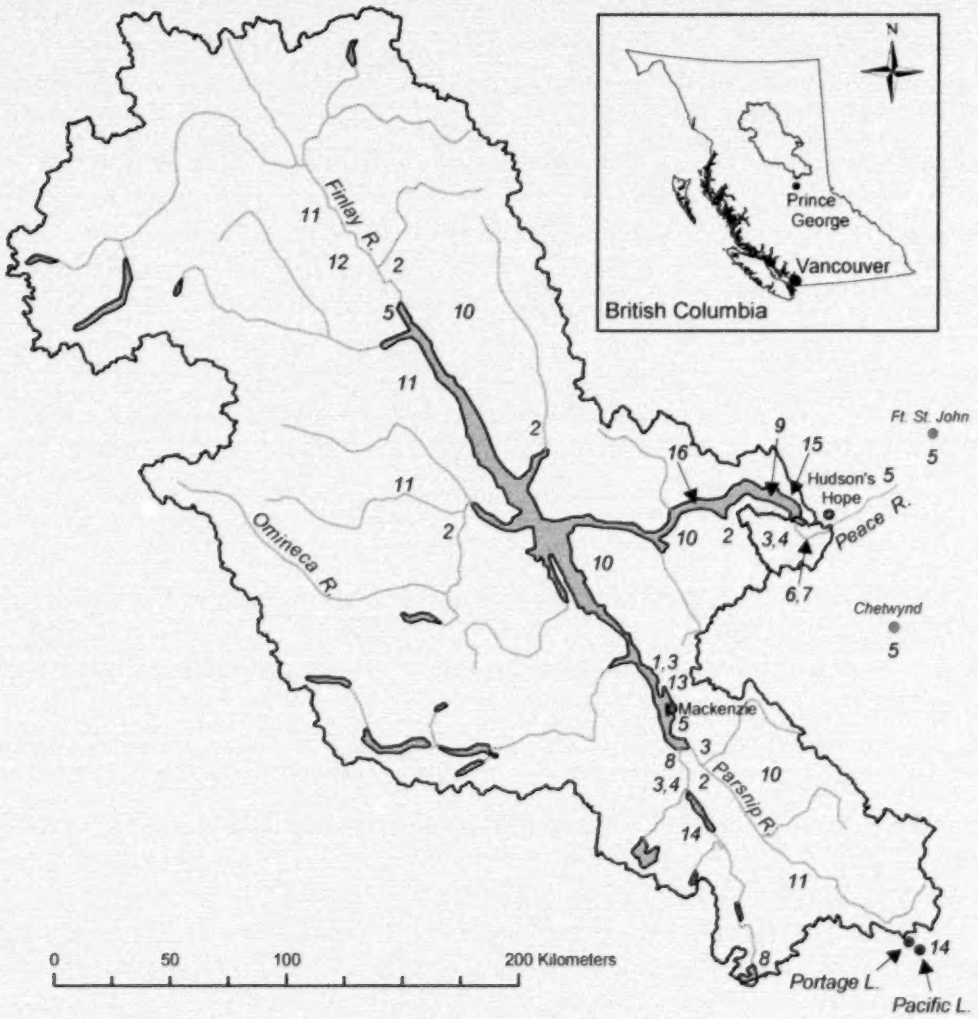
Extension

Input to various planning processes and agencies regarding fish management issues and other research projects was provided by fish staff throughout the year including: 1) BCH's Water Licence Requirements (WLR) projects, 2) terms of reference for WLR project contracts, 3) overlap between WLR and PWFWCP fish projects, 4) provision of CD's with reports, maps, and photo documentation on stream access and foreshore development and status of fish assessments, for BCH water metric workshop, 5) assisted BCH staff (Pete Scales) with surveys of 2 small streams near Tsay Keh village and produced brief report, 6) completed a site assessment of fish stranding/ fish obstruction at Morfee Lake outlet and provided the information to Mackenzie District council, Mackenzie C.O. Service and MoE, 7) provided significant input to BC Hydro on helicopter safety policy issues including: a) participation by staff in BCH's Aerial Surveillance Data Collection initiative including identifying test locations and evaluating RFP bid submissions, b) participation by staff in BCH's Helicopter Management System initiative including identifying our use/need for helicopters and assisting with development of standard operating procedures, and c) acquisition of permits and BCH Hydro approvals by staff for a helicopter-based caribou census on behalf of the Columbia Basin FWCP, 8) coordinated funding for Mackenzie's annual winter family ice fishing event, 9) provided information on PWFWCP to WAC Bennett Tour Guides, 10) participated in discussions on mercury issues in Williston Reservoir fish, 11) assisted BCH staff in locating anchors for the log booms near WAC Bennett dam, and 12) provided and discussed safe work procedure documents developed by PWFWCP staff with other BC Hydro staff.

Input to various planning processes and agencies regarding wildlife management issues and other research projects was provided by wildlife staff throughout the year including: 1) eagle and osprey surveys and enhancement opportunities for local forest licensee, 2) osprey survey information for McLeod Lake First Nations upon request, 3) bird data and Donna Creek project information for Environment Canada (conducting Canada-wide estimate of impact of forestry on songbirds), 4) information on PWFWCP-owned properties along the Peace Arm for Nature Trust of BC, and review of their report, 5) information on mineral licks in Williston watershed for UNBC researcher conducting province-wide lick classification project, 6) information on PWFWCP elk transplants, Stone's sheep research, Mackenzie dump closure/grizzly bear transplants, peat extraction proposal for Blackwater/15 Mile Swamp, wind-farm proposals, and impacts of IPP development on mountain goat lick use in Homes drainage for MoE, 7) review and comment on Ospika Goat Project summary drafted by authors of Adaptive Management document, 8) data and photos from previous swan surveys for Ducks Unlimited presentation at Swan Conference in Whitehorse, 9) information on ungulate capture and radio-telemetry studies to BCH Site C, 10) input on project objectives, design, and methodologies for BCH's proposed Site C ungulate study along the Peace River, 11) review and comment on Species at Risk summary for BCH, 12) input to draft West Coast Fisher Conservation Strategy and Assessment for US Forest Service, 13) input to cooperative caribou projects in Peace for MoF, 14) toxins/contaminants and wildlife for UNBC student, 15) relationships between ungulates and coarse woody debris for consultant, 16) input to Wild/Domestic Sheep Working Group through conference call and review of strategic plan, and 17) issues and information related to sheep surveys on the north side of Peace Arm provided to Marc Imus, David Facey, and Dan Bouillon (BCH) in response to request from PWAC.

FISH PROGRAM

2008/09 FISH PROJECT LOCATIONS



1. Dina Creek
2. Water Temperature Monitoring
3. Fish Stocking
4. Small Lake Evaluations
5. Education Programs
6. Dinosaur Habitat Improvements
7. Dinosaur Bathymetric Map
8. Brassy Minnow
9. Peace Grayling Use
10. Bull Trout Redd Counts
11. Kokanee Index Surveys
12. Finlay Grayling Fry Surveys
13. Foreshore Enhancement
14. Kokanee Genetics
15. Gravel Hill Creek
16. Peace Fish Populations

FISH PROJECT SUMMARIES

1. OPERATIONS AND MAINTENANCE (#08-01)

Project Objectives: To provide for the long term maintenance and of ongoing projects. This year the project has been expanded to include, Dina Creek, water temperature monitoring, fish stocking, small lake evaluations, report writing, and project evaluation.

2008/09 (Year 14 of ongoing):

- Dina Creek - maintenance on the spawning channel was completed.
- Water Temperature Monitoring - four additional probes were purchased, stations were checked for accuracy, and data from previous years has been analyzed.
- Fish Stocking – a total of 8000 rainbow trout and 4000 brook trout were released into 5 small lakes and requests for 2009 releases were submitted to the Freshwater Fisheries Society. This project addresses the Program Strategic Objective of providing additional recreational opportunities.
- Small Lake Evaluations - Butternut and Wright lakes were surveyed, a trail camera was tested on Butternut Lake to determine angler use during the summer months, and the first draft reports were completed.
- Report Writing - Reports from previous years that were approved by the Technical Committee in 2008-9 include: Gething Creek Bull Trout Translocation project, Recreational Fish stock Assessments of Simpson, Bruce, Lost, and 43 Mile Pothole lakes and the Evaluation of the Carbon River Side Channel development. Three reports were sent out to a professional editor. Edits have been completed and the reports are awaiting approval by the Technical Committee.
- Project Evaluation - the evaluations of the Dinosaur Reservoir Habitat Improvement project was completed and the report approved by the Technical Committee. The evaluation found that the "Project" met the all objectives of the Program but that a scientific evaluation of the effectiveness of the habitat improvement was lacking (a five year evaluation of fish use was already scheduled for 2009).

2. EDUCATIONAL PROGRAMS (#08-02)

Project Objective: To provide innovative education and public awareness of natural resource issues and better awareness of the Program.

2008/09 (Year 12 of ongoing): This project is an amalgamation of 4 ongoing projects.

- Kokanee Rearing Environmental Awareness - In the spring, kokanee reared by students from Mackenzie (2 schools), Chetwynd (2 schools), Ft. St. John, Hudson's Hope and Tsay Keh were released. Kokanee eggs and presentations were delivered to the Fort Ware and Halfway First Nation Communities and schools in Mackenzie (2), Chetwynd (2), Fort St. John and Baldonnel. The presentations received television (Mackenzie and Prince George) and newspaper coverage (Mackenzie, Chetwynd and Ft. St. John).
- Dina Creek Ecology Day - Students and parents from Mackenzie attended the Dina Creek field day to learn about rainbow trout spawning, habitat requirements, and stream ecology.
- First Nations Awareness of Projects and Fish issues in Traditional Territories - The intent of this project was to invite First Nations persons to participate as volunteer observers in projects in their traditional territories. Unfortunately most of these opportunities were lost do to unresolved BCH helicopter policy issues.
- UNBC Research Lecture Series - Dr. J Nelson (U of Alberta) spoke on "How fish get their common name".

3. DINOSAUR RESERVOIR HABITAT IMPROVEMENTS (#08-03)

Project Objective: To improve shoreline rearing habitat for fish in Dinosaur Reservoir by the addition of cover in the form of woody structures.

2008/09 (Year 6 of 8): 2008 was the sixth year of habitat improvements through the addition of woody structures along the shoreline. A number of structures from previous years required repairs (boom logs broke) and additional wood was added to all existing structures. This year 15 new structures were created using retired boom logs, which were trucked up from Stave Falls. To date 1.8 km of shoreline has been enhanced using 90 structures. This project is an integral part of the strategies outlined for Dinosaur Reservoir in the Dinosaur Reservoir Management Plan. These plan(s) emphasise habitat improvements to compensate for limitations on production as a result of construction of the Site One Dam, while at the same time maintaining or improving recreational opportunities without reliance on a stocking program if possible. This project meets the Program Strategic Objective to maintain biodiversity and recreational opportunities and to improve fish populations through the enhancement of existing habitat, particularly where potential losses can be attributed to the construction of the dams.

Large sound trees and boom logs are cabled together and anchored to shore to create habitat

4. DINOSAUR RESERVOIR BATHYMETRIC MAP (#08-04)

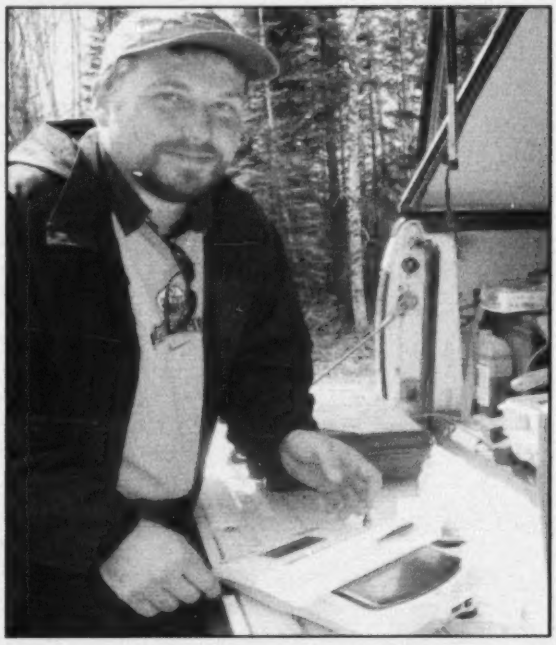
Project Objectives: To create a digital bathymetric map of Dinosaur Reservoir that will be up to today's standards for use on future reservoir activities.

2008/09 (Year 1 of 1): This project was not undertaken because of scheduling problems and we could not co-ordinate this activity with the Ft. St. John MOE staff.

5. BRASSY MINNOW DISTRIBUTION STUDY (#08-05)

Project Objectives: To verify the presence of brassy minnows and collect biological data on this species in the southern portion of Williston watershed. This updated distribution information will then be available to ensure proper species review status with respect to COSEWIC and the Conservation Data Centre.

2008/09 (Year 3 of 5): 2008 surveys found brassy minnows in Boot and Nielson Lakes and an inlet stream of Summit Lake, but none were found in McLeod or an unnamed lake in the Omineca watershed. Damon Nowosad from UBC (Masters Student working on a phylogeographic analysis of Brassy Minnows in British Columbia) assisted with the field work. He is also undertaking genetic analysis of the samples collected. Outside funding from Conservation Framework Funding has been obtained which will allow us to collect additional presence/absence data in 2009. This project meets objective of conserving fish species and their habitat.



Damon Nowosad collects weight data from a brassy minnow obtained from Boot Lake.

6. PEACE REACH GRAYLING GENETIC SAMPLES (#08-06)

Project Objectives: To investigate anecdotal information that suggests there may be small numbers of grayling utilizing the Peace Reach.

2008/09 (Year 1 of 1): This project was not initiated because of staff time commitments. After the formation of the Reservoir grayling were the most abundant sport fish species in the Peace Reach streams, but they have absent from the Peace Reach since the late 1980's. Recently we have been receiving reports of grayling being captured at the stream mouths soon after ice off in the spring. This project would meet the objective of conserving species negatively impacted by the formation of the reservoir.

7. DISTRIBUTION OF GRAYLING FRY IN THE FINLAY RIVER (#08-07)

Project Objectives: (1) To determine the distribution and relative abundance of Arctic grayling fry in Williston Reservoir tributary streams and to map potential spawning areas. Surveys were conducted in the Omineca in 2001, Osilinka in 2002, Ingenika in 2003, Nation in 2004 and the Parsnip River in 2005. In 2006 we surveyed the upper Finlay River and tributaries and in 2007 the middle reaches and tributaries were completed. In 2008 the lower reaches and tributaries will be completed. If time permits we may resample some of the more promising sites in 2008.

2008/09 (Year 3 of 3): In 2008 this project was cancelled at the last minute because of unresolved helicopter policy issues within BC Hydro. This project would meet the objective of conserving species negatively impacted by the formation of the reservoir.

Typical electro-fishing site on the Finlay River. Grayling fry are most frequently found in slow flowing areas <20 cm deep, and usually in side and back channels of larger rivers.

8. SYNOPSIS OF THE PEACE\WILLISTON ARCTIC GRAYLING PROGRAM (08-08)

Project Objective: To review, collate and analyse the past and current grayling projects and data to provide a synopsis of the Peace\Williston Arctic grayling program and to develop informed decisions around strategic implementation plans.

2008/09 (Year 1 of 3): This project has changed fairly dramatically from the original proposal as outlined in the 2008/09 budget document. We are now funding a graduate student from UNBC who has summarized the data collected from Williston Watershed, compared it with data collected elsewhere in BC and pointed out data gaps. Her thesis will focus on determining preferred water temperatures for grayling in Williston Watershed. Additional funding from National Sciences and Engineering Research Council of Canada has been obtained for this project. This project would meet the objective of conserving species negatively impacted by the formation of the reservoir.

9. ARCTIC GRAYLING MANAGEMENT AND RECOVERY PLAN (#08-09)

Project Objectives: To provide an acceptable framework for a "recovery " plan for arctic grayling in the watershed aimed at protecting and enhancing the remaining stocks and habitats and to conceivably reintroduce stocks back into areas where they have been extirpated.

2008/09 (Year 6 of ongoing): A draft management/recovery plan was developed but in the interim the Province has developed a new Species Management Plan format. So the plan will have to be adapted to this new format. Unfortunately because of staffing issues this is unlikely to occur in the next year. The objectives in the draft plan for the Williston Management area were:

- Establish long term monitoring,
- Complete basin level synoptic surveys,
- Evaluate identified threats and establish action plans, and
- Implement life history priority work.

This project meets the objective of conserving species negatively impacted by the formation of the reservoir.

Studies on Arctic Grayling identified that individual fish use multiple river systems, making development of a management plan for the species more complex. This grayling, radio-tagged in September 1996 in the Anzac River, migrated 55 km downstream to over-winter in the Parsnip River, spawned the next June in the Table River, then returned to the Anzac River that September.

10. Bull Trout Redd Count Indexing (#08-10)

Project Objective: To monitor and compare bull trout redd counts at strategic index sites in order to determine population trends with the intent of enabling input into management, protection, and enhancement plans for Williston Reservoir bull trout.

2008/09 (Year 6 of ongoing): Redd counts were lower than expected on Point, Davis and Misinchinka rivers. The survey of Scott Creek identified locations for future ground surveys and helicopter landing pads but the ground survey and "resistivity fence applicability investigation was not completed because of helicopter use restrictions. It was also confirmed that the large school of fish congregating off the mouth of Davis River were in fact bull trout.

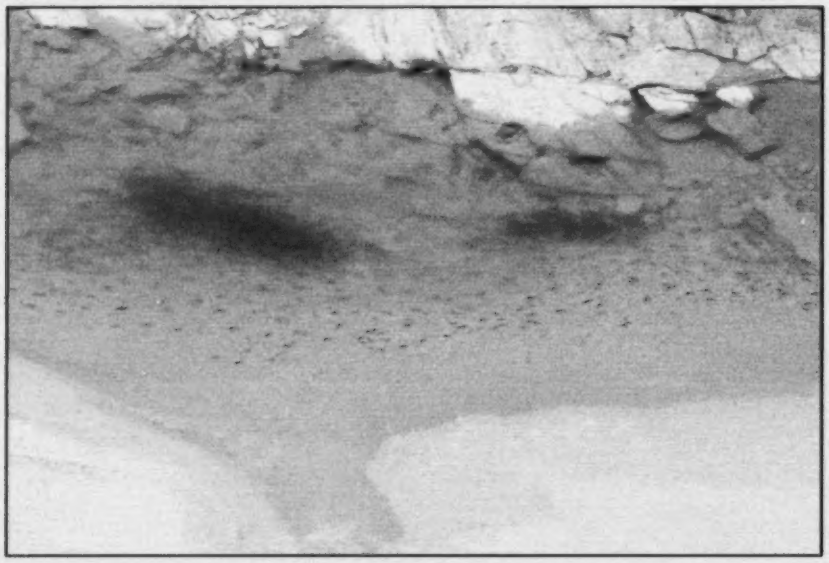
Bull trout redd in the Misinchinka River. Note area of clean gravel evident for about 2 weeks after spawning.

11. Kokanee Spawner Index Steam Surveys (#08-11)

Project Objectives: To collect biological data and monitor trends in the kokanee population by conducting aerial counts on selected index streams.

2008/09 (Year 2 of 5): The index streams (Hydro Creek, Germansen, Osilinka, 3 Finlay River tributaries, and 2 Ingenika River tributaries) were surveyed in September 2008. Habitat changes in Germansen River and appears to have resulted in much lower counts in that system. The number of Kokanee spawners doubled in Russel and Tsaydiz Creeks (Finlay River tributaries), while the Swannell (Ingenika tributary) count dropped. The outlets of Arctic and Tacheeda lakes were flown

but no Williston Reservoir kokanee spawners were observed. Results of these counts were provided to First Nations Communities and local residents as well as the Provincial Fisheries Agency. This project meets the Program Strategic Objective to evaluate the status of fish and their habitat and to evaluate enhancement projects.

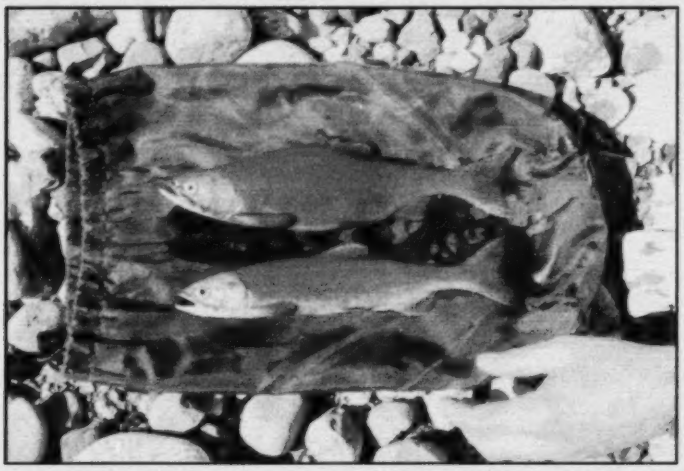


Kokanee spawners in the Osilinka River, 2008.

12. Genetic Analysis of Kokanee Population Structure in Williston Watershed (# 08-12)

Project Objectives: To determine the genetic makeup of the kokanee population of the watershed. Particularly, to differentiate the native stocks, (determine their origins and distribution) from the introduced populations from Columbia River hatchery stocks.

2008/09 (Year 3 of 4): Only one fish sample was collected from McLeod Lake and the Portage/Pacific lakes sampling was cancelled because of delays dealing with the helicopter safety policy issues . Attempts will be made to collect the additional samples in 2009.



Kokanee spawners, male (top) and female (bottom), from Germansen River.

13. GRAVEL HILL CREEK HABITAT ENHANCEMENT (# 08-13)

Project Objectives: To increase rainbow trout and kokanee production in gravel hill creek through a public involvement habitat improvement project.

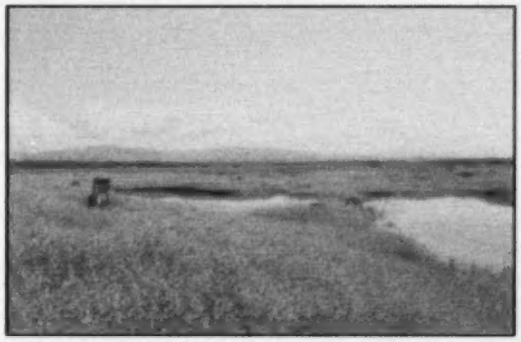
2008/09 (Year 1 of 4): Rock from a local quarry was tested and found to be suitable for instream work. In late September electrofishing surveys were conducted to provide baseline data on fish use so that the benefit of the habitat enhancement could be documented. The data generated was taken to a statistical expert to provide input on the sampling design and number of pre-study years required to document an increase in the numbers of fish. This project will also raise public awareness of the PWFWCP with key stake holder groups (Williston Reservoir boaters and anglers at the Portage Mountain Yacht Club) and promote public awareness, appreciation and understanding of Northern aquatic ecosystems. This project will be spread over a number of years because of funding shortages and staff time commitments.

Gravel Hill Creek where it enters the Williston Reservoir at the Portage Mountain Yacht Club.

14. FORESHORE/EMBAYMENT ENHANCEMENT PILOT PROJECT (# 08-14)

Project Objectives: To provide richer more complex habitats through the promotion of more vigorous plant growth in the foreshore areas of embayments. This project should enhance critical habitat in order to maintain biodiversity and enhance fish and wildlife species which may have been negatively impacted by the reservoir. This pilot project will test the effects of fertilizer on vegetation development in the drawdown zone.

2008/09 (Year 1 of 5): This project was initiated in May 2005 with test plots set up in Tony Creek embayment (10 km north of Mackenzie) to test the effects of fertilizer on plant growth in the upper portion of the drawdown zone. However, since 2005 reservoir water levels have inundated most of the drawdown zone before plans can establish making this project impossible. This project will be deferred while reservoir levels are in this high water cycle. This project addresses the Program mandate to enhance critical habitats to compensate for negative impacts resulting from the creation of the reservoir.



Ideal conditions: These flooded channels and associated vegetative cover provide exceptional rearing habitat for small fish. Healthy vegetation has established here in part because this area is protected by the causeway from waves and it is not pounded by debris during fall storms.

A typical area that would be selected for treatment.

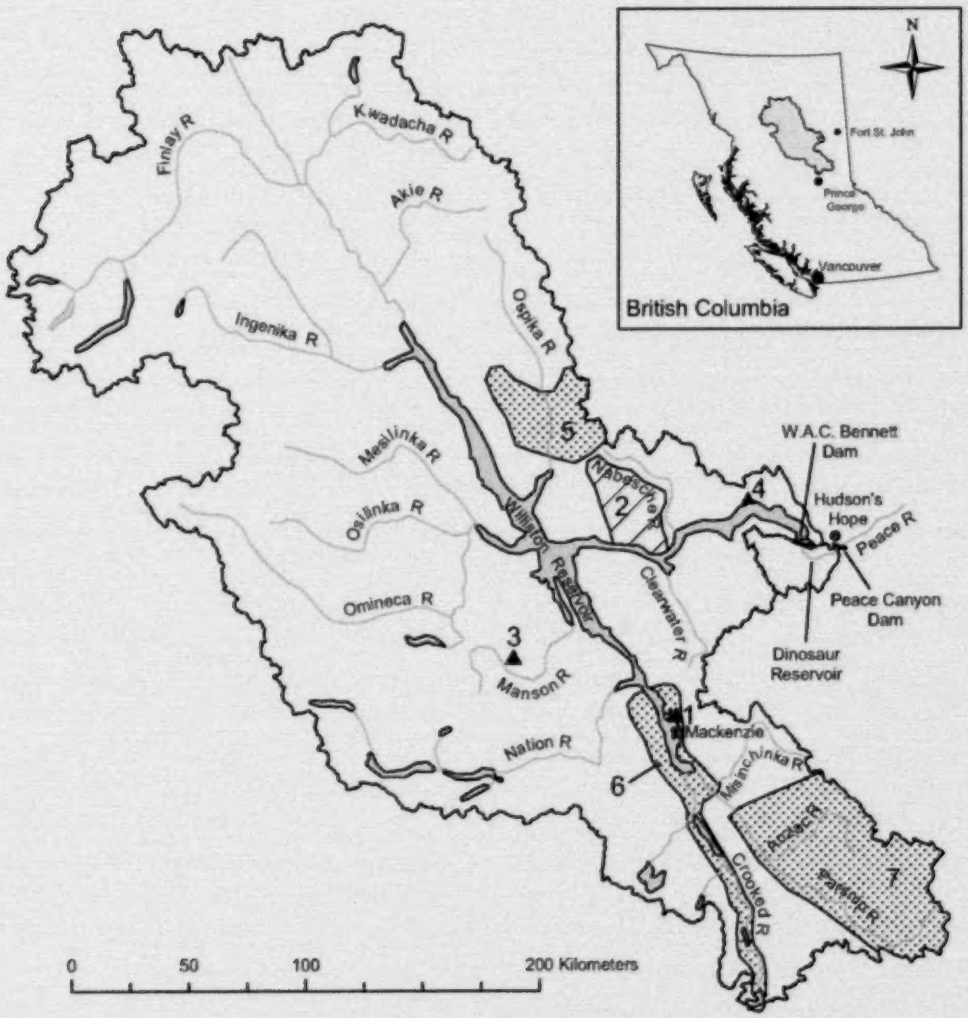
15. WILLISTON RESERVOIR FISH POPULATIONS (08-15)

Project Objectives: To determine the species composition, abundance, and biomass of fish in the pelagic zone of Williston Reservoir.

2008/09 (Year 1 of 3): Funding for this project was provided by B C Hydro's Water Licence Requirements staff. The gill netting was completed by program and WLR staff. The hydro acoustic and side scan sonar activities were completed by program staff and D Sebastian (MOE). Preliminary results indicate numbers and biomass of fish has remained similar to the 2000 survey. Kokanee are now the most abundant species, surpassing lake whitefish. There are still some problems with the side scan sonar which will have to be worked out in order to improve the accuracy of the estimates. Data analysis and reporting by program staff and D. Sebastian will be completed in 2009. This project meets the Program Strategic Objective to evaluate the status of fish and their habitat.

WILDLIFE PROGRAM

2008/09 WILDLIFE PROJECT LOCATIONS



Map	Task#	Project	Location
1	08-01	Mackenzie Migratory Songbird Monitoring (Funded Project – MNO, CWS)	Parsnip
2	08-02	Nabesche Goats & Licks	Peace
3	08-03	Donna Creek Forestry/Biodiversity (CANFOR)	Parsnip
4	08-04	Peace Arm Prescribed Burn (MoE, MoF)	Peace
5	08-05	Ospika Goat/Mineral Lick Project (CANFOR)	Finlay
7	08-06	Parsnip Caribou Recovery Trial (Funded Project - MoE)	Parsnip
6	08-07	Reservoir Osprey Surveys	Finlay/Parsnip
	08-08	Project Evaluation (Fisher Project)	n/a
	08-09	Report Writing/Publications	n/a
	08-10	Peace Arm Sheep Inventory	Peace
	08-11	Grizzly Bear Scoping Study	Peace
	08-12	Status of Priority Birds	Watershed
	08-13	Fisher Handbook	Watershed

Collaborators are listed in brackets following the project name with the following multi-collaborator exceptions:
"Funded Projects" are projects funded by the PWFWCP but administered and conducted by other agencies.

WILDLIFE PROJECT SUMMARIES

1. MACKENZIE MIGRATORY BIRD MONITORING (FUNDED PROJECT) (#08-01)

(This project is administered and delivered by the MNO.)

Project Objectives: To determine the population status and trends of neotropical migratory songbird populations in the northern Rocky Mountain Trench, and to identify those species that may be at risk from habitat loss and degradation. This is a long-term initiative of the Canadian Wildlife Service to monitor trends of songbird populations throughout North America, to which the PWFWCP contributes annual funding support.

2008/09 (Yr 14 of 18): The mist-nets and banding station at Mugaha Marsh were re-established in July and two full-time staff were hired for the fall migration season. Volunteers from the MNO, other organizations, and the general public, provided assistance on a full-time basis. In addition to capturing and banding birds, volunteers conducted bird surveys, entered and verified data, prepared an annual report, raised funding, hired and coordinated master banders and volunteers, and maintained the banding lab, trailer, boardwalks, nets, and net-lanes. Between 19 July and 23 September, 2,548 birds of 68 different species were banded at the station during "standard" banding (the first 6 hours after sunrise), down from the 3,092 birds of 62 species banded in 2007. Additional birds banded during non-standard banding (hummingbirds, owls, and shorebirds) brought the total to 73 species. Migration this year was slow and steady (9th lowest year in 14 years in terms of birds per net hour), without any large peaks in bird movement; the highest number of birds captured per day was on 6 September (102). Five new species were captured and banded at the station this year: Rose-breasted Grosbeak, Bay-breasted Warbler, Ash-throated Flycatcher, Mountain Chickadee, and a Western Palm Warbler. The most commonly banded species were the American Redstart (347), Ruby-crowned Kinglet (327), Northern Waterthrush (179), Yellow Warbler (166), and Orange-Crowned Warbler (139). The CWS continued work on isotope analysis of feathers collected from captured birds, and investigating specific relationships between migratory birds and Williston Reservoir water levels.

Mugaha Marsh

Rose-breasted Grosbeak

2. NABESCHE GOATS & LICKS (#08-02)

Project Objectives: To improve the distribution of minerals throughout the range of suitable mountain goat terrain in the Nabesche River drainage through the establishment of artificial mineral licks, and as a result, expand the current range and population of goats in the drainage.

2008/09 (Year 11 of 13): An assessment of treatment sites replenished with salt blocks in July 2007 and an aerial survey to determine the distribution and abundance of mountain goats in the study area was scheduled for September 2008 but cancelled due to BC Hydro's helicopter ban, and deferred until 2009.

Although many natural mineral licks are found in valley bottoms, the artificial licks were established in alpine locations to improve the likelihood that goats would actually find them.

3. DONNA CREEK FORESTRY/BIODIVERSITY PROJECT (#08-03)

Project Objectives: To develop alternative forest harvesting techniques designed to benefit wildlife that utilise tree cavities (e.g. woodpeckers, red-breasted nuthatch, marten), and to monitor wildlife use of the harvested treatments at successive seral stages (i.e. approx. every 10 years) over the next 60 to 100 years.

2008/09 (Year 16 of ongoing): This project was initiated in 1991 and 1992 with the harvesting of 3 treatment cutblocks. Within these cutblocks, 3-metre high stubs and ¼-hectare "tree islands" were retained in various combinations in the 4 quadrants of each cutblock. Old-growth forest and conventional clearcut areas were identified as controls to compare to these treatment areas. Phase I (early-seral stage) monitoring occurred in 1995 and 1996 and included intensive bird surveys and stub retention and decay assessments. In 2006 and 2007, these surveys and assessments were conducted for Phase II (shrub-seral stage) of the project. In 2008/09, final reports for the Phase II breeding-bird and cavity-nesting surveys were completed and posted on the PWFWCP website. The study area was also revisited to address inconsistencies in some stub data collected in 2007. Stub survivorship and decay analyses were conducted and a preliminary draft report was prepared on the status of stubs and tree islands 15 years after treatment. Most stubs (97%) were still standing, but only 5% (97) of the stubs had a cavity present. Cavities were mainly created by nesting and feeding primary cavity excavators; few cavities had formed due to natural decay. Tree islands had varying levels of retention but islands with the poorest retention were the least protected from prevailing winds.

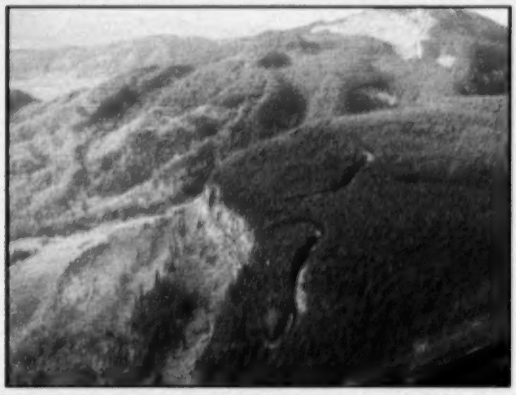
Data being collected on a spruce stub with two woodpecker nesting cavities.

A cavity created by a pileated woodpecker that was foraging on carpenter ants.

4. PEACE ARM PRESCRIBED BURNS (#08-04)

Project Objectives: To enhance forage for ungulates (primarily Stone's sheep and elk) and bears, and to provide foraging and breeding habitat for many wildlife species that require early seral habitats. The objective of the current "Branham Cliff" burn is to convert conifer adjacent to East Branham Cliffs to expand the grassland area for the southernmost wintering population of Stone's sheep in the province.

2008/09 (Ongoing): Two fireguards along the top of Branham Cliffs were cut in 2003 and burning of the debris piles was completed by 2007. The timber adjacent to the cliffs was scheduled for broadcast burning using a conventional helicopter/drip-torch system in spring 2008, however, a site visit with the Forest Service resulted in approval for only a cut-and-burn of the remaining timbered patches in fall, due to the high risk of fire escape. The fall cutting and burning was cancelled due to BC Hydro's helicopter ban, and deferred until 2009. Branham Cliffs is a primary winter and lambing range for Stone's sheep ewes in the Dunlevy Herd. This burn will create additional grassland forage immediately adjacent to the cliff's escape terrain.

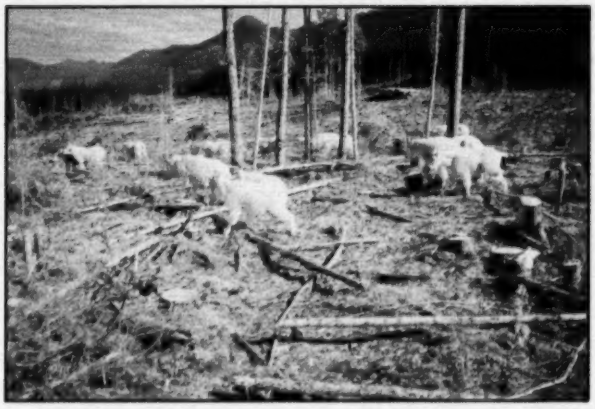


Fireguards were created along the top of East Branham cliffs in preparation for burning of forested patches adjacent to the steep cliff terrain used year-round by Stone's sheep.

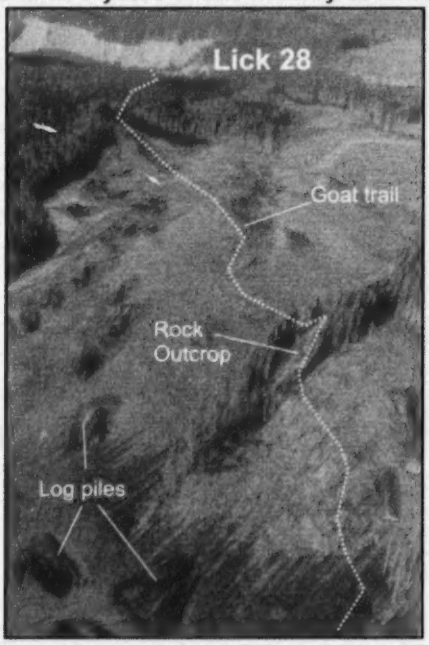
5. OSPIKA GOAT MINERAL LICK STUDY (#08-05)

Project Objectives: To determine the impacts of 2 different forest harvesting options on mountain goat behaviour related to use of low-elevation mineral licks and trails. The first treatment, which occurred after the first year of monitoring, involved retention of a forested buffer along the goats' main access trail to one of the mineral licks when the area was logged. The second treatment occurred after the 4th year of monitoring and involved the removal of the forested buffer.

2008/09 (Yr 7 of 8): The last of 6 years of fieldwork was completed late in 2007 necessitating the removal of all remote radio-telemetry stations in 2008. All 22 stations were permanently dismantled and removed in summer 2008. The final year of "post-clearcut" camera data was analysed and written up, which completed the camera data analysis section of the report. Summarization of the final year of remote telemetry station data to determine the frequency, timing and duration of lick visits by collared goats was completed, and all 6 years of lick visits by collared goats were statistically analysed by a Simon Fraser University statistician. The statistician also reviewed the statistical tests used for analysis of the camera data to ensure appropriateness of tests. All report components will be pulled together and the final discussion section will be written in 2009.



Mountain goats crossing the clear-cut near Lick 28 to access the valley-bottom mineral lick.



The goat trail to Lick 28 after the forested buffer strip along the trail was removed.

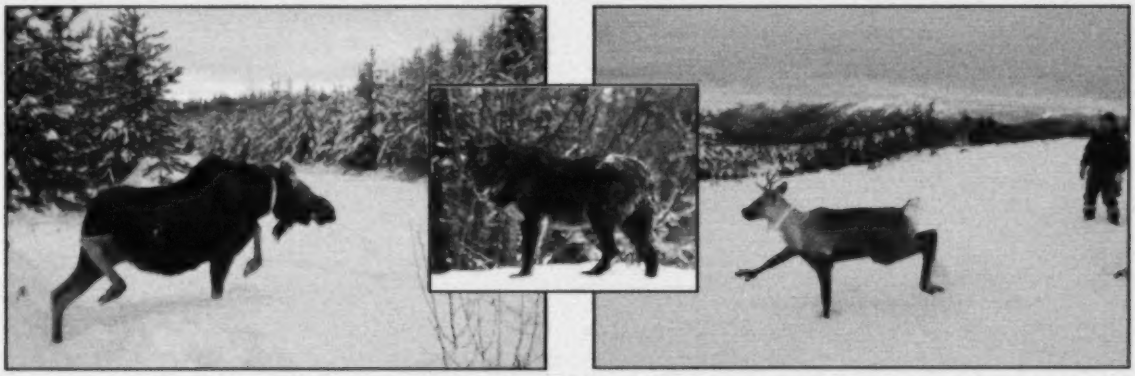
6. PARSNIP CARIBOU RECOVERY TRIAL (FUNDED PROJECT) (#08-06)

(This project is administered and conducted entirely by MoE.)

Project Objectives: To assist with the recovery of threatened caribou populations in the Southern Mountains National Ecological Area by evaluating the feasibility of increasing the Parsnip Caribou Herd population by reducing moose numbers in the area (using increased hunter harvest) which should result in fewer wolves and less predation on caribou.

2008/09 (Yr 3 of 4): Radio-collared moose, caribou and wolves were monitored throughout the year by fixed-wing aircraft, and population surveys were conducted. Radio-collared moose (23), caribou (17) and wolves (11) were monitored through the year; an additional 8 caribou and 7 wolves were radio-collared in winter 2009. Four moose, 1 caribou, and 3 wolves died during the year and 2 additional wolves went missing. A moose survey conducted in December 2008 resulted in a population estimate of 1800 moose, down from the 2005 estimate of 2800 moose at the beginning of the project. The number of moose hunting permits remained unchanged

from 2007, but seasons were split and lengthened to increase hunter efficiency by reducing crowding. The caribou population estimate in late winter (184 caribou) was higher than the previous year (156 caribou, March 2008) which was the lowest estimate during the study to date (207 caribou, March 2007). Four remote radio-telemetry stations from the Ospika Goat Project were established to monitor movements of the Anzac wolf pack into the alpine and caribou habitat. Wolves spent little time at elevations used by caribou in summer, and virtually no time during winter. Investigation of GPS-point clusters suggested that predation by wolves on caribou was low and much time spent by wolves at higher elevations was spent hunting moose. This project was initiated by MoE in 05/06, but taken on as a PWFWCP project in 06/07 ("Year 1") with funding provided primarily by the PWFWCP.



It is thought that the decline in many woodland caribou populations in BC can be attributed to the increase in moose throughout their range, which consequently supports a larger wolf population. Caribou are more vulnerable to wolf predation since they are smaller than moose.

7. RESERVOIR OSPREY SURVEYS (#08-07)

Project Objective: To monitor the population status and distribution of ospreys breeding adjacent to the Parsnip and Finlay Reaches of the Williston Reservoir, and conduct nest-site enhancements when and where necessary.

2008/09 (Year 12 of ongoing): Initial aerial surveys of reservoir raptors (ospreys and bald eagles) were conducted in 1995 and 1997. The availability and distribution of osprey nest sites, and their productivity, were identified as a concern because ospreys rely heavily on snags in the reservoir inundation zone for nesting; all these snags will eventually fall down and no natural recruitment will occur. Osprey surveys were conducted again in 2002 and were scheduled for 2007 but were deferred to 2008 due to higher-priority program activities. In 2008, the pre-breeding survey to identify nest sites was conducted in April but two subsequent surveys to determine the number of breeding osprey pairs, and their productivity, were cancelled due to helicopter restrictions imposed on all helicopter use within BC Hydro. Completion of the surveys (including a repeat of the nest-site identification survey), was deferred to 09/10.

8. PROJECT EVALUATION (FISHER PROJECT) (#08-08)

Project Objectives: To review a project or suite of projects to ensure achievement of the PWFWCP strategic objectives related to evaluation and accountability, and to ensure that the PWFWCP is effectively addressing strategic priorities identified for the Wildlife Sub-program. The project selected for 2008/09 was the Fisher Habitat Use Project.

2008/09 (Yr 2 of 1): The evaluation of the Fisher Habitat Use Project by the Wildlife Technical Committee was deferred again to 2009/10.

9. DATA ANALYSES/REPORT WRITING (#08-09)

Project Objectives: To analyse data and complete reports from previous fiscal projects.

2008/09 (Ongoing): The final Fisher Habitat Use, Summer Waterfowl Inventories, and Wetlands Enhancement Monitoring reports were completed and posted on our website, while the Caribou Recovery/Synthesis of Information report was completed by contractor and posted on the website just shortly after fiscal year-end. Analyses were completed for the Neonatal Ungulate Selection report and the report was drafted but set aside until 2009/10 in order to address higher priority reports. Analysis of the 6-year dataset for the Peace Arm Stone's sheep continued by contractor, including seasonal habitat use, home ranges, and movements and range use in relation to winter tick loads and hair loss, and report sections were written. Significant progress was made on the McLeod Lake Grizzly Bear final project report as well. Data gathered by remote telemetry datalogger on the timing, frequency and duration of visits by radio-collared grizzly bears to the landfill, pre and post closure, were summarized. Analyses of home ranges before and after landfill closure, including distances to landfill, were completed and report sections written. Data on den site selection, mortalities, and family relationships were analyzed and report sections completed. The Peace Sheep, McLeod Grizzly, and Ospika Goat reports (see project #5) will be completed in 2009.

10. PEACE SHEEP POPULATION MONITORING AND ENHANCEMENT (#08-10)

Project Objectives: To determine the presence/absence, distribution, population size and population demographics (age/sex ratio) of Stone's sheep north and south of the Peace Arm of Williston watershed, to monitor trends in known populations, and to identify opportunities for habitat and/or population enhancement.

2008/09 (Ongoing): A one-day helicopter inventory of the Mt. Selwyn and Mt. Frank Roy/Monteith ranges (south side of Peace Arm) was scheduled for March 2009, but deferred to March 2010 due to BC Hydro's helicopter ban and the re-prioritization of staff's workload to focus on completion of several large project reports.

11. GRIZZLY BEAR SCOPING STUDY (#08-11)

Project Objectives: To clarify and determine the best aspects of 2 proposed grizzly bear projects, one from the West Moberly Band and one from MoE, and combine into one proposal for submission to the SC in the fall budget process.

2008/09 (Year 1 of 1): A "sub-committee" was formed (comprised of two staff, two wildlife technical committee members, and members from West Moberly and Tsay Keh Dene) and tasked with development of a combined proposal. Two sub-committee conference calls were held in April and May 2008 to discuss potential objectives for a combined project, and a subsequent request was made to West Moberly FN for further details regarding their proposal's objectives. No further progress was made in 08/09, and the proposal development was deferred to 09/10.

12. STATUS OF PRIORITY BIRDS (#08-12)

Project Objectives: To determine the status of 6 bird species at risk within the watersheds (common nighthawk, olive-side flycatcher, rusty blackbird, American bittern, great blue heron, and sandhill crane), and to develop action plans and/or enhancements for the species.

2008/09 (Year 1 of 1): Available information was to be reviewed and status reports initiated, but the project was deferred to 09/10 due to a higher emphasis on completion of several large project reports.

13. FISHER HANDBOOK (#08-13)

Project Objective: To produce extension products (e.g., a "best management practices" handbook) that will assist forest practitioners (managers to machine operators) in identifying, maintaining, and creating fisher habitat in British Columbia.

2008/09 (Year 1 of 3): Meetings to discuss the initiative were held between potential partners and collaborators: PWFWCP, MoE, fisher consultants and FORREX. Representatives from MoF, forest licensees, First Nations, and BC Trappers Association have also been approached. Proposals for funding support were prepared and submitted to the Forest Science Program (FSP) and the Habitat Conservation Trust Fund (HCTF). A logic-model process was initiated to help direct the initiative.

FINANCIAL SUMMARIES

ADMINISTRATION

The Administration budget in 08/09 was $62,182 ($34,980 from the Fish program and 27,202 from Wildlife) to cover the annual costs of office and warehouse lease, phones, computers, and office support. Total expenditures amounted to $80,076 which included 25% of the total salary costs for the new Program Managers incurred in the latter half of 08/09 (total salary costs: $54,930 for Marc Imus, $21,135 for Andrew MacDonald). [Note: PWFWCP biologist wages for time spent on Administration, Program Planning, and CCI activities are accounted for within the Fish and Wildlife budgets.] The over-expenditure of $17,894 in the Administration account reduced the amount of total carry-over available for the 09/10 fiscal year (see final Financial Summary on page 32).

PROGRAM PLANNING

The Program Planning budget in 08/09 to cover Steering Committee meetings, First Nations engagement and consultation activities, and other related meetings/workshops to define the future of the program was $140,000. Total expenditures amounted to $101,512 which included the remaining 75% of the total salary costs for the new Program Managers (see Administration), leaving $38,488 available to carry-over into the new 09/10 fiscal.

COMMUNITY CONSULTATION AND INFORMATION

The annual Community Consultation and Information (CCI) budget allocation in 2008/09 was $34,750, which together with $5,000 carried-over from 2007/08 for sign development, resulted in a total budget of $39,750 (Table 1). Total CCI expenditures amounted to $57,798 owing primarily to over-expenditures in the Natureline and Website Maintenance projects. The summer 2008 Natureline was drafted in the 07/08 fiscal, but monies were not carried over into the new fiscal to cover the costs for consultant charges, re-designing the layout, and final printing and distribution which occurred in 08/09. Website Maintenance costs were substantially higher than anticipated due to the restructuring of the Projects and Reports sections of the PWFWCP website, and the initiation of development of a new FWCP website to cover all 3 chapters of the Program (Bridge/Coastal, Columbia Basin, Peace/Williston). The final construction of three program signs by BCH was not completed, and a helicopter flight for the Fish Educational Programs was cancelled, resulting in some under-expenditures as well. The total over-expenditure of $18,048 in the CCI account reduced the amount of total carry-over available for the 09/10 fiscal year (see final program Financial Summary on page 32).

Table 1. Detailed Community Consultation and Information expenditures for 2008/09.

Task #	PROJECT NAME	AMOUNT BUDGETED	AMOUNT EXPENDED
1	Natureline	$1,000	$18,628
2	New Releases & Media Interviews	$250	$0
3	Website Updating & Maintenance	$2,500	$14,198
4	Fishing Regulations Ad	$1,500	$1,542
5	Hunting Regulations Ad	$1,500	$107
6	Information Dissemination	$250	$1,171
7	UNBC Lecture Series	$3,200	$4,418
8	Website Report Description Updates	$2,000	$1,335
9	Signs – Dinosaur, Dunlevy, & Mugaha	$5,000	$1,004
10	Donations/Sponsorship	$2,000	$500
11	Promotional Items	$1,000	$942
12	Fish CD ROM	$4,750	$4,813
13	Fish Educational Programs (Kokanee, Dina)	$14,800	$9,140
	TOTALS	**$39,750**	**$57,798**

[1] "Amount Expended" includes operational costs, BCH Community Relations staff wages, and BCH consultant costs.

FISH PROGRAM

The basic annual Fish Program budget in 2008/09 was $686,592, which together with an additional $181,250 in carry-over funds from 2007/08 less 34,250 required by the Steering Committee, resulted in a total available fiscal budget of $833,592. Of this, $720,800 was budgeted for projects and the remaining $113,000 remained in carry-over. Fish program expenditures in 2008/09 amounted to $471,838 of which $228,342 (48%) was spent on Projects (Table 2). This under-expenditure of nearly $250,000 was due to the cancellation of a number of projects because of uncertainty around helicopter issues. The remaining funds in the Fish Program budget amounted to $361,754. Staff time spent on Administration was 181 days (26%), PST 167 days (24%), CCI 123 days (18%), and Projects 224 days (32%).

Table 2. Detailed Fish Program budget expenditures for the 2008/09 fiscal.

Task #	PROJECT NAME	PROJECT COSTS[1]	CATEGORY TOTALS	% Budgeted	% Expended
	ADMINISTRATION[2]		$88,839	6%	19%
	PLANNING, SAFETY & TRAINING[3]		$94,036	31%	20%
	COMMUNITY CONSULTATION & INFO[4]		$60,621	3%	13%
	PROJECTS		$228,342	60%	48%
1	Operations and Maintenance	$69,843			
3	Dinosaur Reservoir Habitat Improvements	$36,580			
4	Dinosaur Bathymetric Map	$33			
5	Brassy Minnow	$9,392			
6	Peace Reach Reservoir Grayling Use	$0			
7	Grayling Fry Distribution in the Finlay Watershed	$1,376			
8	Grayling Synopsis	$23,879			
9	Grayling Management and Recovery Plan	0			
10	Bull Trout Redd Count Indexing	$22,386			
11	Kokanee SpawnerIndex Stream Survey	$31,421			
12	Genetic Analysis of Kokanee Population Structure	$5,130			
13	Gravel Hill Creek Habitat Enhancement Potential	6,354			
14	Foreshore Enhancement Project	$0			
15	Williston Reservoir Fish Populations	$21,948	**$471,838**	**100%**	**100%**

[1] Project Costs: includes operational costs, staff wages and travel, equipment & supplies, and vehicle costs.
[2] Administration: includes staff wages, minor office supplies, and vehicle costs. (Hard costs for office lease, computers, phones etc. accounting for under Administration account.)
[3] Planning, Safety & Training: includes staff wages and travel, Technical Committee travel, training courses, conferences, and vehicle costs. (Hard costs for SC meetings, strategic planning meetings, First Nations meetings, and other planning initiatives accounted for under Planning account).
[4] Community Consultation & Information: includes staff wages & travel, vehicle costs, and hard costs for Education Programs (project task form #08-02). (Hard costs for CCI activities accounted for under Community Consultation account).

WILDLIFE PROGRAM

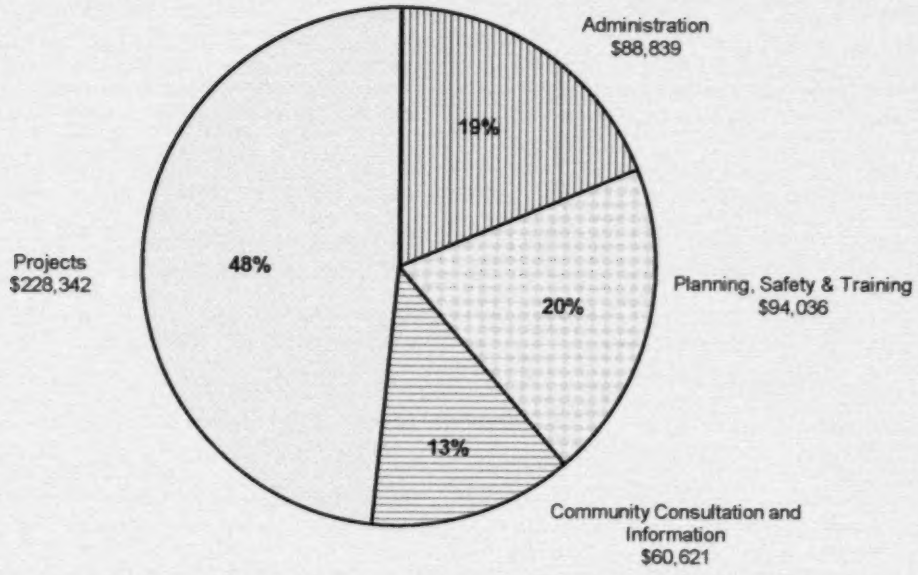
The annual Wildlife Program budget allocation in 2008/09 was $563,344 which together with an additional $144,052 in carry-over funds from 2007/08 resulted in a total available budget of $707,396. Of this, $609,385 was allocated for spending during the 08/09 fiscal, and $98,011 was reserved for carrying-over into the 09/10 fiscal year. Wildlife program expenditures in 2008/09 amounted to $521,072, of which $419,137 (80%) was spent on wildlife research, enhancement, and evaluation projects (Table 3). Funds remaining in the Wildlife budget ($186,324) were carried over for the 09/10 fiscal. Staff time spent on Administration was 68 days (14%), PST 90 days (18%), CCI 30 days (6%), and Projects 308 days (62%).

Table 3. Detailed Wildlife Program budget expenditures for the 2008/09 fiscal.

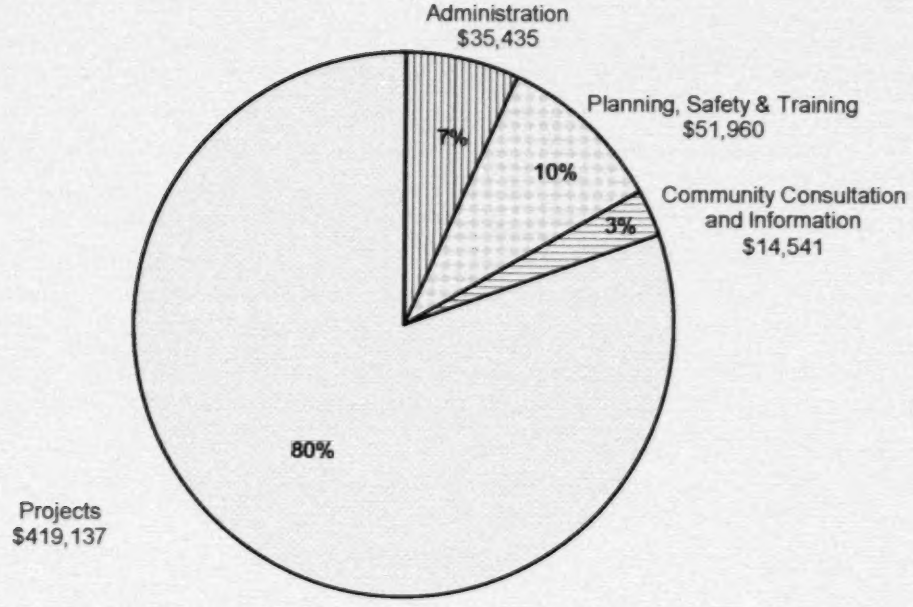
Task #	PROJECT NAME	PROJECT COSTS[1]	CATEGORY TOTALS	% Budgeted	% Expended
	ADMINISTRATION[2]		$35,435	4%	7%
	PLANNING, SAFETY & TRAINING[3]		$51,960	9%	10%
	COMMUNITY CONSULTATION & INFO[4]		$14,541	2%	3%
	PROJECTS		$419,137	85%	80%
1	Mackenzie Migratory Bird Banding	$7,651			
2	Nabesche Goats and Licks	$201			
3	Donna Creek Forestry/Biodiversity	$59,930			
4	Peace Arm Prescribed Burn	$2,805			
5	Ospika Goat/Mineral Lick Project	$54,330			
6	Parsnip Caribou Recovery Trial	$160,764			
7	Reservoir Osprey Surveys	$28,903			
8	Project Evaluation (Fisher Project)	0			
9	Report Writing/Publications	$52,456			
10	Peace Arm Sheep Inventory	$1,863			
11	Bear Scoping Project with First Nations	$2,621			
12	Status of Priority Birds	0			
13	Fisher Handbook	$5,846			
n/a	Fisher Project Final Report	$8,774			
n/a	Peace Sheep Project Final Report	$7,035			
n/a	Caribou Technical Analysis	$25,957	**$521,072**	**100%**	**100%**

[1] Project Costs: includes operational costs, staff wages and travel, equipment & supplies, and vehicle costs.
[2] Administration: includes staff wages, minor office supplies, and vehicle costs. (Hard costs for office lease, computers, phones etc. accounting for under Administration account.)
[3] Planning, Safety & Training: includes staff wages and travel, Technical Committee travel, training courses, conferences, and vehicle costs. (Hard costs for SC meetings, strategic planning meetings, First Nations meetings, and other planning initiatives accounted for under Planning account).
[4] Community Consultation & Information: includes staff wages & travel, and vehicle costs. (Hard costs for CCI activities accounted for under Community Consultation account).

Fish Program



Wildlife Program



PWFWCP 08/09 PROGRAM FINANCIAL SUMMARY

The total 08/09 budget for the PWFWCP, including carry-over from the previous fiscal year, was $1,782,920 (Table 4). Total expenditures for the 5 "sub-programs" in the PWFWCP (reported on separately in the preceding pages) in 08/09 amounted to $1,232,296, leaving $550,624 remaining to carry-over to the new 09/10 fiscal year.

Table 4. Summary of amounts budgeted and expended in each of the 5 components of the PWFWCP, 2008/09.

PROGRAM	AMOUNT BUDGETED	AMOUNT EXPENDED	CARRY-OVER TO 09/10
Administration	$62,182	$80,076	-17,894
Program Planning	$140,000	$101,512	38,488
Community Consultation and Information	$39,750	$57,798	-18,048
Fish Program	$833,592	$471,838	361,754
Wildlife Program	$707,396	$521,072	186,324
TOTAL	**$1,782,920**	**$1,232,296**	**$550,624**

Removing those portions of the Fish Program and Wildlife Program budgets that were spent on Administration, Planning, and Community Consultation, and apportioning them to their respective categories, demonstrates that 56% ($647,479) of the total 08/09 expenditures were spent on Fish and Wildlife enhancement and research projects (Table 5).

Table 5. Final actual expenditures in each of Administation, Planning, Community Consultation, Fish Projects, and Wildlife Projects in 2008/09.

PROJECT	ADMIN	PLANNING	CCI	FISH PROGRAM	WILDLIFE PROGRAM	TOTAL
Administration	$80,076	0	0	$88,839	$35,434	$204,349
Program Planning	0	$101,512	0	$94,036	$51,960	$247,508
Community Consultation and Information	0	0	$57,798	$60,621	$14,541	$132,960
Fish Projects	0	0	0	$228,342	0	$228,342
Wildlife Projects	0	0	0	0	$419,137	$419,137
TOTAL	**$80,076**	**$101,512**	**$57,798**	**$471,838**	**$521,072**	**$1,232,296**